Neonatal Abstinence Syndrome Surveillance in West Virginia

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Overview

- Crisis in West Virginia
- Initial challenges
- Defining the syndrome
- Developing a tool for measurement
- Using the data
- New challenges
2001-2016 Resident Drug Overdose Mortality Rates
West Virginia and United States

Data Source: WV Health Statistics Center, Vital Surveillance System and CDC Wonder
Rates are age-adjusted to the 2000 US Standard Million
Maternal and Child Health Impact

- Neonatal ICUs at Capacity
- Foster Care Placements Up Over 50%
- Increased Substance Abuse Identified in Infant Deaths
- Expenses for Early Intervention Up $4 Million Each Year
- Lack of Available Treatment Centers
Initial Challenges

Data

Infrastructure

Expertise
759 Total Cords

- Positive: 81%
- Negative: 19%

Drugs

- THC: 35%
- Alcohol: 24%
- Opiates: 23%
- Methadone: 10%
- Benzos: 8%

Other Available Data

Rate of Infants Born with NAS per 1,000 Delivery Hospitalizations

Source: HCUP – State Inpatient Databases
https://mchb.tvisdata.hrsa.gov/PrioritiesAndMeasures/NationalOutcomeMeasures
Critical Partnerships

- Public Health
- Perinatal Partnership
- WVU Department of Pediatrics
- Centers for Disease Control and Prevention (CDC)
- Medicaid
• Founded in 2006 to bring together individuals and organizations involved in all aspects of perinatal care.
• State agencies work side by side with providers as members of this organization to work on critical issues.
• The Partnership formed the Substance Use in Pregnancy Committee to:
  o Make policy recommendations;
  o Identify best practices; and
  o Develop a collaborative and coordinated approach to best meet the needs of this high risk population.
• In September 2014, West Virginia neonatologists and pediatricians met with coders and members of the Perinatal Partnership to develop a standardized definition for neonatal withdrawal and guidance on documenting exposure and withdrawal in newborns.
  o Neonatal Abstinence Syndrome (NAS) includes neonatal withdrawal from many substances, not just opiates;
  o It is exposure with clinical symptoms; and
  o It is not limited to those cases that require pharmacological treatment.
• All birthing centers were trained to use this definition.
The Birth Score Program

- Partnership between the DHHR, BPH, Office of Maternal Child Health and the WVU Department of Pediatrics.
- In 1998, the State was authorized to establish and implement the Program, which requires hospitals, birthing facilities, and persons attending a birth to ensure that a birth score is determined.
- Identifies infants at greatest risk for health problems.
- Expands capacity to meet required "child find" responsibilities.
- Significant contribution to the reduction of mortality among infants who are one month to one year of age.
- Nearly all infants (over 98%) receive a birth score.
- Used this infrastructure to collect NAS data beginning October 2016.
Questions Asked on Birth Score

Intrauterine Substance Exposure (includes any medication prescribed by a physician during pregnancy).

• Yes/No (if no, questions below will not be available)
  • If yes, then check all that apply
    • Self-reported
    • Documented in prenatal record
    • Positive maternal drug test
    • Unknown
    • Other
  • Infant with clinical signs consistent with NAS diagnosis*?
    • Yes/No
• Expressed concern during sidebar conversation at a CDC site visit that DHHR lacked capacity to use data to full potential.

• Prevention for States (PFS) grant from CDC now provides data support via funding for an epidemiologist/statistician at the Birth Score Office.

• Enables multiple ongoing submissions for publication, mapping, and press releases.

• Data is used for program planning, specifically to determine expansion sites for West Virginia’s treatment program for pregnant women with substance use disorder.
Results

Statewide Rates:

- Intrauterine Substance Exposure: 143 per 1,000
- NAS: 50.6 per 1,000

* Data is for WV residents
New Challenges

• Balancing the need to use the data in a variety ways and maintain appropriate confidentiality.
• Using the data to facilitate quality improvement opportunities in hospitals.
• Partnering with DHHR’s Bureau for Children and Families to ensure that the provider community does not accidentally increase child protective services reports of the same information for the same infant.
• Partnering with researchers to develop longitudinal studies.
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